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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,553	10/10/2003	Dynanesh Tamboli	22203-00002-US	7917

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CONNOLLY BOVE LODGE & HUTZ LLP  
SUITE 800  
1990 M STREET NW  
WASHINGTON, DC 20036-3425

EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/683,553	Applicant(s) TAMBOLI ET AL.	
	Examiner Michael A Marcheschi	Art Unit 1755	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
     4a) Of the above claim(s) 20-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____   |

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19, drawn to an aqueous slurry, classified in class 51, subclass 307.
- II. Claims 20-22, drawn to a polishing method, classified in class 438, subclass 692.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product as claimed can be practiced with another materially different product, such as one that does not contain all of the claimed components.

Because these inventions are distinct for the reasons given above and (1) have acquired a separate status in the art as shown by their different classification and (2) have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Burton A. Amernick on 12/15/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 20-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

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currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

The drawing is objected to because the examiner can not determine the lines of the different films. The lines on the figure do not clearly point out the individual films (all the lines look the same and therefore the examiner can not decipher which film corresponds to which line). The figure should be resubmitted with symbols being used to clearly show which film corresponds to which line. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are

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required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 is indefinite because the limitation "the corrosion inhibitor" lacks antecedent basis since one has not been literally defined before.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13-17 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Grumbine et al.

Grumbine et al. teach in column 3, line 26-column 9, line 40, a composition having the claimed pH comprising an abrasive (claimed amount), and oxidizer (claimed amount), **at least one** inhibitor (i.e. tetramethyl ammonium hydroxide, etc.), phosphoric acid (about 3%), water and a surfactant. Other inhibitors include corrosion inhibitors.

The claimed invention is anticipated by the reference because the reference teaches a composition which comprises all of the claimed components in claimed amounts. Although the instant claims do not define the amount of phosphoric acid (for comparative purposes), the reference teaches an amount which inherently would alter the pH within the claimed range. In addition, since the pH is the same, this component added in the reference amount reads on the claimed limitation. The reference teaching of **at least one** inhibitor reads on a mixture of tetramethyl ammonium hydroxide and a corrosion inhibitor. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention absent evidence to the contrary.

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Claims 12 and 18 are rejected under 35 U.S.C. 103(a) as obvious over Grumbine et al.

The limitation of claim 12 is obvious because the reference teaches that the amount of the claimed component is about 2% and therefore no patentable distinction is seen to exist in the absence of any critical evidence showing the contrary because "about" **permits some tolerance**, *In re Ayers*, 154 F 2d 182, 69 USPQ 109. The limitation of claims 18 is obvious because the reference clearly teaches that corrosion inhibitors can be used (nitrogen containing heterocycles) and the broad interpretation of this encompasses benzotriazole because **"A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".** Benzotriazole is a nitrogen containing heterocycles. In addition, benzotriazole is a well known corrosion inhibitor thus the use of any known corrosion inhibitor is well within the level of ordinary skill in the art.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as obvious over Mirsa et al.

Mirsa et al. teach in column 3, line 40-column 6, line 30, a composition comprising an abrasive (claimed amount), and oxidizer (claimed amount), an alkyl ammonium hydroxide (claimed amount-i.e. tetramethyl ammonium hydroxide, etc.), phosphoric acid, water and a surfactant.

The reference teaches a composition which comprises all of the claimed components and although the pH is not literally defined (acidic), this does not preclude the composition of the reference from having this value because all composition must have a pH. It is therefore the

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examiners position that since the reference fails to mention any specific pH (criticality), this (the absence of any such limitation) constitutes a broad teaching of pH values, as long as the final composition is obtained. In view of this, it can be reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). The reference teaches that phosphoric acid is used and although the instant claims do not define the amount of phosphoric acid (for comparative purposes), the reference teaches an amount which is the examiners position would alter the pH within the claimed range absent evidence to the contrary. The limitation of claims 18 is obvious because it is the examiners position that the incorporation of any known conventional polishing additive is well within the scope of the skilled artisan.

Claims 1-3 and 5-19 are rejected under 35 U.S.C. 103(a) as obvious over Ma et al.

Ma et al. teach in sections [0049]-[0061] and claim 27, a composition having the claimed pH comprising an organic abrasive (claimed amount), and oxidizer (claimed amount), an alkyl ammonium hydroxide-i.e. tetramethyl ammonium hydroxide, etc.), phosphoric acid, water and a surfactant. Benzotriazole can also be added.

The reference teaches a composition which comprises all of the claimed components and although the reference fails to define the amount of ammonium hydroxide, the reference states that this is added in an amount to modify the pH within the range defined. It is the examiners position that the amount needed to accomplish this fails within the range of the instant claims, thus making the range obvious absent evidence to the contrary. Although the instant claims do not define the amount of phosphoric acid (for comparative purposes), the reference teaches an



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amount which inherently would alter the pH within the claimed range. In addition, since the pH is the same, this component added in the reference amount reads on the claimed limitation. With respect to the other ammonium hydroxide, the reference states that organic bases can be used and this broadly encompasses the claimed ammonium hydroxide because it is an organic base.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as obvious over Darsillo et al.

Darsillo et al. teach in sections [0044]-[0059], a composition having the claimed pH comprising an organic abrasive (claimed amount), and oxidizer (claimed amount), an alkyl ammonium hydroxide-i.e. tetramethyl ammonium hydroxide, etc.), phosphoric acid, water and a surfactant. Benzotriazole can also be added.

The reference teaches a composition which comprises all of the claimed components and although the reference fails to define the amount of ammonium hydroxide, the reference implies that this is added in an amount to modify the pH within the range defined (i.e. since this is a pH modifier). It is the examiners position that the amount needed to accomplish this falls within the range of the instant claims, thus making the range obvious absent evidence to the contrary. Although the instant claims do not define the amount of phosphoric acid (for comparative purposes), the reference teaches an amount which inherently would alter the pH within the claimed range. In addition, since the pH is the same, this component added in the reference amount reads on the claimed limitation. With respect to the other ammonium hydroxide, the reference states that organic bases can be used and this broadly encompasses the claimed ammonium hydroxide because it is an organic base.

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In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

"A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)". In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

"A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

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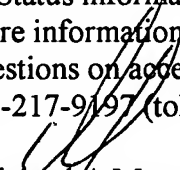
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/04

MM

  
Michael A Marcheschi  
Primary Examiner  
Art Unit 1755